

SECTION 12495 – MOTORIZED ROLLER SHADES

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes: Motorized Roller Shades
- B. Related Sections: [**Specify applicable sections with related work**].

1.02 REFERENCES

- A. NFPA 701, Small Scale Test

1.03 SYSTEM DESCRIPTION

- A. Performance Requirements: Provide fully factory assembled motorized roller shade system with related hardware to complete the installation.

1.04 SUBMITTALS

- A. Product Data: Submit manufacturer's product data for specified products.
- B. Shop Drawings: Submit shop drawings showing product components and typical details.
- C. Samples: Submit selection and verification samples for finish, color and texture.
- D. Test Reports: Certified test reports showing compliance with specified performance characteristics and physical properties.
- E. Certificates: Product certificates signed by manufacturer or dealer certifying materials comply with specified performance criteria and physical requirements.
- F. Manufacturer's Instructions: Manufacturer's installation instructions.
- G. Closeout Submittals: Submit the following:
 - 1. Operation and Maintenance Data: Operation and maintenance data for installed products in accordance with Division 1 Closeout Submittals (Maintenance Data and Operation Data) Section. Include methods for maintaining installed products and precautions against cleaning materials and methods detrimental to finishes and performance.
 - 2. Warranty: Warranty documents specified herein.

1.05 QUALITY ASSURANCE

- A. Installer Qualifications: Installer should be experienced in performing work of this section, and be specialized in installation of work similar to that required for this project.
- B. Source Limitations: Obtain all roller shade systems in this section from a single supplier.
- C. Fire Test Response Characteristics: Provide shade cloth which passes NFPA 701, small scale test.

1.06 DELIVERY, STORAGE & HANDLING

- A. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- B. Storage and Protection: Store materials protected from exposure to harmful weather conditions, at temperature and humidity conditions recommended by manufacturer.

1.07 WARRANTY

- A. Project Warranty: Refer to Conditions of the Contract for project warranty provisions.
- B. Manufacturer's Warranty: Submit manufacturer's standard warranty executed by authorized company official.
- C. Installation Warranty: One year commencing on Date of Substantial Completion.

1.08 MAINTENANCE

- A. Extra Materials: Deliver to Owner [**specify %**] extra full size units that match products installed. Package extra units with protective covering and identify with descriptive labels.

PART 2 - PRODUCTS

2.01 MOTORIZED ROLLER SHADES

- A. Manufacturer: Solarfective Products Ltd.
1. Manufacturer Contact: Solarfective Products Ltd., 6 William Morgan Drive, Toronto, Ont. M4H 1E5, website www.solarfective.com, phone 416-421-3800.
 2. Dealer Contact: ArchiTextures, 4301 Aurora North, Seattle, WA 98103, website www.fabricpanels.com, phone 206-634-1166 or 800-562-6518, fax 206-632-1989.
- B. Product(s):
1. Solarfective Motorized Teleshade™, a fully factory assembled, unitized motorized shade system.
 2. Solarfective Motorized Televent™, a system that combines Teleshade™ with the building's air handling systems for increased climate control.
 3. Solarfective Trax™, a flexible track and roller system for Teleshade™ that guides shades to conform to the building's architecture.
- C. Mounting:
1. Recessed mounting options:
 - a. Concealed pocket mount, with closure supplied by shade manufacturer.
 - b. Concealed ceiling mount, with headbox and closure supplied by shade manufacturer.
 2. Face mounting options:
 - a. Face mount or inside mount, with fascia, and with optional back fascia, supplied by shade manufacturer.
 3. Single shadeband or multi shadeband products as scheduled.
 4. Regular roll or reverse roll as scheduled.
- D. Operation:
1. Motorized shade system with linear motor concealed inside the shade tube, and all necessary electrical accessories for switch or automatic control.
 2. Removal must not require the disassembly of the shade unit.
- E. Requirements:
1. Provide fully factory assembled shade unit consisting of end brackets, shade tube, motorized drive assembly, fascia, drive chain, hembar, and specified fabric.
 - a. End Brackets (Drive and Idler): Shall consist of 1/8" thick sheet steel. Wall, jamb or ceiling mounted as required. Brackets color shall coordinate with the fascia color.
 - b. Fabloc Tube: Extruded aluminum tube, 6063 – T5 alloy, 2.55" O.D. tube with internal keyway to receive tubular motor. Tube shall be extruded with two fabric mounting channels. Channels shall be designed to accept fabloc spline. Long span fabloc tube also available.
 - c. Fabloc Spline: Extruded vinyl with asymmetrical locking channels and embossed fabric guide, for use with 2.55" O.D. tube. Spline shall be snapped and locked into fabloc tube and have sufficient capacity to support fabric shade. Spline shall be readily removable without dismounting fabloc tube from end brackets.
 - d. Motor Assembly: The motor shall be asynchronous with built in reversible capacitor start and run, made to be operated with 95-125V-AC at 60Hz. Single phase. D.C. motor not acceptable. Thermally protected, totally enclosed, and UL approved. Motor operator shall be concealed inside the shade tube and be maintenance free.
 - e. Gear Box: 3 levels of satellite gears for load distribution, planetary type gears machined to close tolerance of tempered steel. Speed varies according to model from 12 RPM to 30 RPM.
 - f. Internal Limit Switches: Two hex key limit switches to allow exact setting of stop position in both the raise and lower positions. Micro switches provide circuit breaking at the end of the run. Limit switch setting cannot be disturbed by the action of the roller tube.
 - g. Brake: Solenoid activated disc brake mechanism stops and holds in any position. Brake automatically disengages when motor is operating.

- h. Controls: Maximum of two motors shall be operated by a three position rocker switch, located remotely as directed. Where required, motors shall be hooked up to a Motor Group Control supplied by the manufacturer.
- i. Fascia: The extruded aluminum fascia shall be 1/16" (1.7mm) thick, complete with three continuous screw flutes. Specify from the following colors:
 - 1) Anodized (clear, bronze, or custom)
 - 2) Baked Enamel (white, beige, or custom)
- j. Hembar: The hembar shall be extruded aluminum with plastic end finials.

2.02 SHADE FABRIC: (Select from the following)

- A. Solar shading made from woven vinyl-coated polyester or fiberglass yarns:
 - 1. 300 Series Solarblock with 3% openness factor.
 - 2. 500 Series Solarshield with 5% openness factor.
 - 3. 1000 Series Solarview with 10% openness factor.
- B. XL 2 solar shade: Reflective white exterior surface, glare control interior surface, 3% openness factor.
- C. Room darkening:
 - 1. Standard Solarstop blackout fabric.
 - 2. Linen finish blackout fabric.
- D. Dual shades: Reflective film or blackout combined with solar shade on one shade tube.
- E. Double shades: Reflective film or blackout combined with solar shade on two shade tubes.

2.03 PRODUCT SUBSTITUTIONS

- A. Substitutions: No substitutions permitted.

PART 3 - EXECUTION

3.01 MANUFACTURER'S INSTRUCTIONS

- A. Compliance: Comply with manufacturer's product data, including product technical bulletins, product catalog installation instructions and product carton instructions for installation.

3.02 EXAMINATION

- A. Site Verification of Conditions: Verify conditions, which have been previously installed under other sections, are acceptable for product installation in accordance with manufacturer's instructions.
- B. Field Measurements: Prior to fabrication, field measure each area which is to receive roller shade installation to establish the exact size and layout of the units as shown on the architectural drawings.
- C. Site Verification of Environmental Conditions: Verify that the work space is enclosed and weather tight, all wet work is dry and complete, and all adjacent and related work of other trades has been completed. Verify ambient temperature and humidity are continuously maintained at values indicated for final acceptance of the building or occupancy of the space.

3.03 PREPARATION

- A. Adjacent Surfaces Protection: Protect adjacent work areas and finish surfaces from damage during product installation.

3.04 INSTALLATION

- A. Fabrication: Fabricate shades completely in the factory to fit the shade layout as shown on the architectural drawings.
- B. Manufacturer Installation Instructions:
 - 1. Install shades level and plumb, with anchorage and support as required and as recommended by the manufacturer.
 - 2. The fabric shall hang flat, without buckling or distortion. The edge, when trimmed, shall hang straight without raveling.

3. Site Tolerances: An unguided roller shade fabric shall roll true and straight, without shifting sideways more than 1/8" in either direction due to warp distortion or weave design.
- C. Adjustment: Installer will adjust shade systems to operate smoothly and free from binding or malfunction throughout entire range.

3.05 CLEANING AND PROTECTION

- A. Cleaning: Remove temporary coverings and protection of adjacent work areas. Repair or replace damaged installed products. Clean installed products in accordance with manufacturer's instructions prior to Owner's acceptance. Remove construction debris from project site and legally dispose of debris.
- B. Protection: Protect installed product and finish surfaces from damage during construction.

END OF SECTION